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**FROM: Winston Hsu, PATENT AGENT, REG. NO. : 41,526**

**SERIAL NO.: 09/683,099**

**ATTORNEY DOCKET NO.: YMBP0001USA**

**SUBJECT: PRELIMINARY AMENDMENT**

**TOTAL PAGES: 9 PAGES (INCLUDING COVER PAGE)**

**Winston Hsu 2004/07/01**

**YMBP0001USA0\_A3\_1**

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APPLICATION NUMBER: 09/683,099

PAPERS INCLUDED:

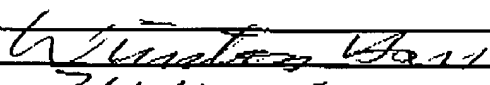
(1) Transmittal Form	1 PAGE
(2) Fee Transmittal	1 PAGE
(3) Response to the Non-Compliant Amendment	5 PAGES

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<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)		Application Number	09/683,099
		Filing Date	11/16/2001
		First Named Inventor	Shih-Hsiong Shen
		Art Unit	2643
		Examiner Name	NI, SUHAN
Total Number of Pages in This Submission	7	Attorney Docket Number	YMBP0001USA

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks _____		
<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT</b>		
Firm or Individual name	Winston Hsu, Reg. No.: 41,526	
Signature		
Date	7/1/2004	

CERTIFICATE OF TRANSMISSION/MAILING		
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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 0.00

## Complete if Known

Application Number 09/683,099  
Filing Date 11/16/2001  
First Named Inventor Shih-Hsiong Shen  
Examiner Name NI, SUHAN  
Art Unit 2643  
Attorney Docket No. YMBP0001USA

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number 50-3105  
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The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

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## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					(\$ ) 0.00

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims  - 20\*\* =  X  =   
Independent Claims  - 3\*\* =  X  =   
Multiple Dependent  =

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	86	2201	43	Independent claims in excess of 3	
1203	290	2203	145	Multiple dependent claim, if not paid	
1204	66	2204	43	** Reissue independent claims over original patent	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)					(\$ ) 0.00

\*\*or number previously paid, if greater. For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1601	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) 0.00

## SUBMITTED BY

Name (Print/Type) Winston Hsu

Signature

Registration No. 41,526

(Attorney/Agent)

(Complete if applicable)

Telephone 886289237350

Date

11/1/2004

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

5      Applicant:    Shih-Hsornng Shen,                      Examiner:    Ni, Suhan  
                         Shuenn-Tsong Young,  
                         Weileun Fang  
         Filing Date:    11/16/2001                      Art Unit:    2643  
         App. No.:    09/683,099                      Docket No.: YMBP0001USA

10    Title:            HEARING AID DEVICE WITH FREQUENCY-SPECIFIC  
                         AMPLIFIER SETTINGS

         To:            Commissioner for Patents  
                         P.O. BOX 1450  
15                      Alexandria, VA 22313-1450

         Subject:       Response to the Notice of Non-Compliant Amendment dated  
                         06/04/2004

20    Dear Sir or Madame:

                         In response to the Notice of Non-Compliant Amendment identified above, the  
                         AMENDMENTS TO THE CLAIMS section is submitted below. All claims are  
                         identified with proper status identifiers. Consideration of all amendments is politely  
25    requested.

**AMENDMENTS TO THE CLAIMS**

Claim 1 (currently amended): An acoustic signal input device comprising:

an input for inputting acoustic signals;

5 a plurality of bandpass-~~filters~~ filtering units each for passing acoustic signals with frequencies within a predetermined frequency range, and transforming the acoustic signals into electrical signals and amplifying the electrical signals; and

10 a plurality of switches each connected to a corresponding bandpass-~~filter~~ filtering units for controlling on and off of the bandpass-~~filter~~ filtering units;

wherein the switches are capable of being selectively turned on ~~so as to~~ such that the bandpass filtering units amplify transformed electrical signals within different frequency ranges at different amplifications.

15

Claim 2 (currently amended): The acoustic signal input device of claim 1 wherein each of the bandpass-~~filter~~ filtering units comprises:

20 two signal transformation units for transforming acoustic signals into electrical signals, the signal transformation units having different resonant frequencies for filtering the electrical signals; and

a differential amplifier electrically connected to the signal transformation units for amplifying a difference between the electrical signals transmitted from the signal transformation units.

25 Claim 3 (currently amended): The acoustic signal input device of claim 1 wherein each of the bandpass-~~filter~~ filtering units is an amplitude-tunable filter capable of changing amplification of electrical signals.

30 Claim 4 (original): The acoustic signal input device of claim 1 being connected to an amplifier for further amplifying the electrical signals transmitted from the acoustic signal input device.

Claim 5 (currently amended): The acoustic signal input device of claim 1 wherein the plurality of bandpass-filter filtering units are formed by performing a micromachining fabrication process.

- 5 Claim 6 (currently amended): The acoustic signal input device of claim ~~1 being a~~  
~~microphone~~ 2 wherein the signal transformation units are microphones.

Claim 7 (currently amended): An acoustic signal input device comprising:  
an input for inputting acoustic signals;  
10 a plurality of bandpass filters each for passing acoustic signals with frequencies within a predetermined frequency range and transforming the acoustic signals into electrical signals;  
a plurality of amplification circuits connected to the bandpass filters for amplifying electrical signals transmitted from the  
15 bandpass filters; and  
a plurality of switches each connected to a corresponding amplification circuit for controlling on and off of the amplification circuit;  
wherein the switches are capable of being controlled to selectively turn on the  
amplification circuits so as to amplify electrical signals transmitted from the  
20 bandpass filters within different frequency ranges at different amplifications.

Claim 8 (original): The acoustic signal input device of claim 7 wherein each of the bandpass filters comprises:  
two signal transformation units for transforming acoustic signals into electrical  
25 signals, the signal transformation units having different resonant frequencies for filtering the electrical signals; and  
a differential amplifier electrically connected to the signal transformation units for amplifying a difference between the electrical signals transmitted from the signal transformation units.

30 Claim 9 (original): The acoustic signal input device of claim 7 being connected to an amplifier for further amplifying the electrical signals transmitted from the

acoustic signal input device.

5 Claim 10 (original):The acoustic signal input device of claim 9 wherein the amplifier is connected to an acoustic signal output device for transforming the electrical signals transmitted from the amplifier into acoustic signals and outputting the acoustic signals.

10 Claim 11 (original):The acoustic signal input device of claim 7 wherein the plurality of bandpass filters are formed by performing a micromachining fabrication process.

Claim 12 (currently amended): The acoustic signal input device of claim ~~7~~being a microphone 8 wherein the signal transformation units are microphones.

15 Claim 13 (original):An acoustic signal output device electrically connected to a signal source, the signal source comprising a plurality of channels for transmitting electrical signals within different frequency ranges, the acoustic signal output device comprising:  
20 a plurality of amplifying elements connected to different channels of the signal source for amplifying electrical signals at different amplifications and transforming amplified electrical signals into acoustic signals.

25 Claim 14 (currently amended): The acoustic signal output device of claim 13 wherein each of the amplifying elements has a ~~greatest~~specific amplification for electrical signals within a frequency range corresponding to a frequency range of a channel that is connected to the amplifying element.

30 Claim 15 (original):The acoustic signal output device of claim 13 further comprising:  
a plurality of switches each connected to a corresponding amplifying element for controlling on and off of the amplifying element;  
wherein the switches are capable of being controlled to selectively turn on amplifying elements so as to amplify electrical signals within different



frequency ranges at different amplifications.

5 Claim 16 (original): The acoustic signal output device of claim 13 wherein the signal source is an amplifier, the amplifier amplifying the electrical signals before the electrical signals are transmitted to the acoustic signal output device.

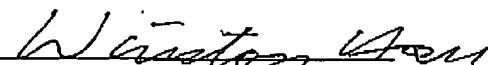
10 Claim 17 (original): The acoustic signal output device of claim 13 wherein the signal source is connected to an acoustic signal input device for receiving electrical signals from the acoustic signal input device.

Claim 18 (original): The acoustic signal output device of claim 13 being a speaker.

15 Claim 19 (original): The acoustic signal output device of claim 13 wherein each of the amplifying elements comprises a signal transformation unit for transforming amplified electrical signals into acoustic signals.

20 Claim 20 (original): The acoustic signal output device of claim 13 being formed by performing a micromachining fabrication process.

Sincerely yours,

25 

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